

ASPHALT PLANT REGULATION (APR)

INTENTIONS PAPER

SUMMARY OF PUBLIC COMMENTS

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Asphalt Plant Regulation (APR) Consultation – Summary of Public Comments

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Asphalt Plant Regulation (APR) – Summary of Public Comments

Introduction

The Ministry of Environment (the ministry) intends to establish an Asphalt Plant Code of Practice to replace the current Asphalt Plant Regulation (APR). The proposed code of practice would apply across the province and would replace the current APR requirements.

This report provides a compilation of stakeholder comments received as part of the consultation process for establishment of the code of practice under provisions of the *Environmental Management Act* (EMA).

Background to the consultation process

A policy intentions paper was posted for public review and comment on the ministry's website (<http://www.env.gov.bc.ca/epd/codes/apr/index.htm>) February 2 through April 16 of 2012. The intentions paper provided a summary of the ministry's mandate and objectives, background information and potential environmental and human health concerns associated with asphalt plants, and the ministry's intentions for the proposed code of practice. A separate response form for providing comments or suggestions to the ministry was also posted on the website.

Purpose and format of the *Summary of Public Comment* document

This document has been prepared for the Ministry of Environment by C. Rankin & Associates, contracted by the ministry to independently receive, compile and review comment on the ministry's intentions for establishment of the regulation.

The complete set of responses received through the consultation process has been compiled and passed to the ministry for detailed review and consideration. All comments and references submitted through this process, through independent submissions and through direct consultations with stakeholders, will be reviewed and carefully considered by the ministry in establishing the regulation.

The summary of responses is arranged by topic as presented in the intentions paper.

Description of responses received

Twenty-three (23) responses to the intentions paper were received (by e-mail, fax and attached file), and have been recorded for this compilation of stakeholder comments. Responses were received from local and regional government agencies, citizen and environmental interest groups, owners and operators of asphalt plants and individuals. About a quarter of the respondents identified themselves as an owner or operator of an asphalt plant.

Summary of Comments

1. Ministry objectives for proposed revisions

The ministry's objectives in revising the Asphalt Plant Regulation are to: establish consistent emission standards and monitoring requirements for asphalt plants to protect the environment and human health; to provide clear regulatory direction, appropriate to degree of risk to the environment and human health, for operation of asphalt plants; and to update regulatory provisions to incorporate current and emerging trends and technologies in asphalt plants (see section 2 of the intentions paper).

Response Form Question 1.1: Do you have any general comments regarding the ministry's objectives for proposed revisions?

Many respondents supported or recognized the need for consistent standards, noting, for example, that "it is important to have a level playing field". Several respondents noted that the regulation is "overdue to be updated" and referenced communications with the ministry over the past half decade regarding issues with air quality and the operation of asphalt plants in "compromised airsheds". These respondents commonly recommended that "more stringent emission limits" are needed and could be achieved for vulnerable and/or compromised airsheds. One respondent, for example, commented that "consistency...does not adequately address the health concerns of citizens who live near asphalt plants".

2. Replacement of the current regulation with a code of practice

The ministry intends to establish a code of practice to regulate waste discharges to the environment from asphalt plants – to provide consistent requirements across the province and to protect the environment and human health in the areas where asphalt plants operate (see section 4.1 of the intentions paper).

Response Form Question 2.1: Do you have any comments or suggestions regarding the ministry's intention to replace the current regulation with a code of practice?

Respondents who commented on this topic commonly expressed support for replacing the existing regulation with a code of practice or noted that they "do not see a big difference between regulation and code of practice". One respondent commented that "the full range of implications [of the change] are unclear" while others requested continued consultation and/or review of the draft code of practice prior to it being implemented.

3. Revised definitions

The ministry intends to update definitions in the revised regulation to ensure that they are consistent with ministry intention, current practices and other legislation (see section 4.2 of the intentions paper).

Response Form Question 3.1: Do you have any comments or suggestions regarding the ministry's intention to remove the distinction between mobile and stationary asphalt plants?

Almost all respondents expressed support for the ministry's intention to remove the distinction between mobile and stationary asphalt plants. Respondents commented, for example, that: "today's technology allows all plants to meet emission requirements"; "the designation of a 'mobile' asphalt plant may have been used as a way to avoid regulations;" and "I have heard of mobile plants that were temporary and ended up there forever". One respondent recommended that "more stringent rules could apply to stationary asphalt plants that are [located] close to residential areas" including on-site dust control measures, truck idling and loading equipment and guidelines and "[low emission] combustion systems for burner and dryer/drum mixer operation[s]".

Response Form Question 3.2: Do you have any comments or suggestions regarding the new definitions proposed by the ministry (asphalt plant, portable recycled asphalt plant, recycled asphalt pavement, warm mix asphalt, aggregate and hot mix asphalt)?

Limited comments were received in response to this question. Respondent comments included: "the new definitions seem appropriate"; "not sure why the [portable recycled asphalt plant] PRAP definition has a maximum production rate of 10 tonnes/hour – are there no plants larger than this?"; and "establishment of a maximum production rate for a PRAP is a welcome change".

4. Air emissions standards

A. Asphalt plant air emission (see intentions paper section 4.3 A)

Response Form Question 4.1: Do you have any comments regarding the ministry's proposed asphalt plant emission parameters and limits?

Responses and comments on this topic differed distinctly. One group of respondents (about a third of those commenting) expressed "support" for the proposed limits with additional comments such as "it is good that the playing field is being leveled", "the proposed limits are achievable" and "the industry is prepared to work with the ministry". The second grouping of respondents recommended "more stringent" emissions standards, particularly in areas with vulnerable or compromised airsheds.

Many respondents recommending more stringent standards provided specific information or references, including:

- “Members in our community... have appreciated the efforts by the Province to identify Prince George in 2007 with lower parameters and limits; however, there is a concern from our members of the community that the emission standards do not set low enough emission levels for our airshed circumstance”
- “Alberta is requiring plants to meet a standard of 82 mg/ m³ in five years. MOE should coordinate with the Metro Vancouver Regional District to establish a lower limit for PM of at least that set by Alberta – [our agency in the Fraser Valley] believes that our airshed is especially vulnerable to air pollutants due to the particular meteorology and topography of the district – stricter regulations are called for under these circumstances
- “[Our agency] strongly urges that the emission limits standards be set to as low as reasonably possible – we encourage the MoE to reassess the proposed emission limits and set them to lower concentrations that are more in line with what is achievable using newer asphalt plant technology – it is our understanding that emission limits of 20 mg/ m³ or lower may not be unreasonable using best achievable technology – these standards could be phased-in over a reasonable timeframe”
- “CCME Canada wide air quality standard has targets for PM_{2.5} and has a PM₁₀ emission target of below 50 mg/ m³ – the PM_{2.5} fraction is more damaging to health than PM₁₀ so this regulation probably needs a PM_{2.5} threshold”
- “40 mg/ m³ emission limit (for particulates) is more appropriate in populated areas, both for new and existing plants – this would align all asphalt plants located in urban/suburban areas with the same emission limits as permitted by Metro Vancouver in populated areas”
- “[Recommend adding to the standards] “that there be no production of asphalt on poor air quality days [and] that there be no production of asphalt on statutory holidays and weekends”

Response Form Question 4.2: Do you have any other comments or suggestions regarding air emission standards related to asphalt plants?

Respondents commented, for example, that “these new standards will encourage owners to upgrade their older equipment” and that “[while] the new standards will be difficult to meet for some companies however industry recognizes the need for changes”.

Additional comments and suggestions included:

- “Consider a permitting system ... more stringent conditions when operation of multiple asphalt plants within a common airshed”
- “MOE should put more resources into enforcement of existing laws... [and] ...increase fees ... in order to provide resources to enforcement staff”
- “Standards should be reviewed every two years [and] in place asphalt plants should have yearly permits”
- “Asphalt contracts should be awarded to companies who have the best pollution reducing technology”

- “There should be a fuel standard for plants operating near populated areas”
- “Attention should also be given to... [diesel compressor plants and considerations such as] dust control, odor and noise vibrations... these other types of pollution in eco-sensitive, populated, or tourism locations [are] just as important to human and animal health and safety... as emissions from the asphalt plant”
- “Concerned about the two year wait time between the enactment of the new code and when the new emissions would come into effect... one year maximum should be sufficient”

B. Hot-in-place asphalt recycling plant air emission standards (see intentions paper section 4.3 B)

Response Form Question 4.3: Do you have any comments regarding air emission standards for hot-in-place asphalt recycling plants?

A limited number of comments was received on this topic. Several respondents however provided detailed discussion and recommendations. One noted, for example, that Ministry of Transportation and Infrastructure budget figures show “approximately 20% of the [ministry’s] annual budget [is spent on]... hot-in-place asphalt... [and] the hot-in-place process consumes approximately 30-50% [more propane] than what is consumed in producing one tonne of asphalt at an asphalt plant – the maintaining of daily records of the types and volumes of fuel used in the hot-in-place asphalt recycling, similar to asphalt plants, should be introduced”. The respondent also noted that “the allowable carbon monoxide limit for hot-in-place asphalt recycling plants is more than twice the allowed for asphalt plants... if “limits cannot be reduced for the hot-in-place process because of the physical constraints of the equipment then the process should be restricted from working in environmentally sensitive areas”. Another respondent suggested that “hot-in-place plants ... should [be subject to] annual test requirements like any conventional plant”.

5. Registration requirements

The ministry intends to update requirements for registration information for asphalt plants (see intentions paper section 4.4).

Response Form Question 5.1: Do you have any comments or suggestions regarding the ministry’s proposed registration requirements for asphalt plants (including hot-in-place asphalt plants)?

All respondents commenting on this topic expressed support or agreement with the ministry’s intention. One respondent also suggested that “registration information of mobile plants should be on-line and available to the public [and] should include a history of monitoring results”.

6. Revised monitoring requirements for asphalt plants

A. Operational sampling conditions (see intentions paper section 4.5A)

Response Form Question 6.1: Do you have any comments or suggestions regarding the ministry's proposed operational sampling conditions?

All respondents commenting on this topic expressed support or agreement with the ministry's proposed operational sampling conditions.

Additional specific comments included:

- "The test should be conducted under normal operating conditions so that it is representative and not under an optimal 'best case' operating scenario"
- "Asphalt plants operating in urban environments [should be required] to burn natural gas, discontinuing the use of waste oil fuel within urban environments"
- "Testing is by project not by date, a contractor can't guarantee a hard and fast test date"
- "Sample plants at various productions rates expected during the year"
- "Mobile plants should be tested at each new location to ensure each set-up is within tolerances"
- "Air standards should be added in areas that have inversions"

Response Form Question 6.2: Do you have any comments regarding the proposed requirements for maintenance of daily records?

All respondents commenting on this topic expressed support or agreement with the ministry's proposed requirements. Respondents noted, for example, that 'we [already] do this'; "[it is the] industry best practice". One respondent also recommended that the records "should be online and available to the public".

B. Stack monitoring frequency (see intentions paper section 4.5B)

Response Form Question 6.3: Do you have any comments or suggestions regarding monitoring of stack emissions for consideration in the revised regulation?

A number of detailed comments were received addressing this topic. Most respondents expressed support for the proposed revisions and the ministry's recognition of "the challenges associated with testing [and monitoring] stack emissions."

Specific comments included:

- "Recommendation - all plants with over 10,000 tonnes production must be tested annually... [and test] all plants below 10,000 tonnes every second year"

- “Opacity measurements are very unreliable and should be eliminated as the information is already provided by Total Particulate and Total Hydrocarbon measurement”
- If there are a lot of small operators within an area then the combined particulate emissions could be of concern”
- “My main concern is the stack testing – being a small operation [less than 5,000 tonnes in a year] I cannot afford to operate the length of time required”
- “[The proposed] testing timeline is ineffective within [vulnerable or compromised airsheds] as plants may operate a full season outside the Regulation’s parameters, and perhaps longer if the ministry follow-up measures are not taken”
- “A single annual compliance test conducted by the operator at a time of their choosing still stands out as a credibility weakness”
- “Frequency [of required testing] should depend on the feedback from the surrounding area”
- “I believe there should be unannounced testing on site periodically”
- “Placement of air monitors should reflect wind patterns... 300 meters from a neighbour in a valley is not enough”

C. Test failures – required action and subsequent monitoring (re-testing) (see intentions paper section 4.5C)

Response Form Question 6.4: Do you have any comments or suggestions regarding the ministry’s proposed requirements in the case of a test failure?

Almost all respondents commenting on this topic supported the ministry’s proposed requirements in the case of a test failure. Some respondents also expressed concern that effective ministry follow up is needed to ensure “immediate action” commenting, for example, that the proposed wording is “vague...what should immediate action entail... all operators should be required to have... an action plan... that outlines what specific steps they will take should a monitoring test failure occur”. Another respondent recommended that “neighbouring residents or the media should be notified in the event of a test failure... [and] the plant should not be allowed to operate until it can guarantee an improvement”.

7. Revised record keeping and reporting requirements for asphalt plants

Response Form Question 7.1 Do you have any comments regarding proposed record keeping and reporting requirements (see intentions paper section 4.6)?

All respondents commenting on this topic expressed support for the proposed record keeping requirements.

Additional specific questions or comments included:

- “Do we need to submit or just hold on to records? what is an emergency shutdown? who would we notify?”
- “Not sure how enforceable they will be, especially with regarding to asking operators to notify the ministry within 24 hours... especially remotely-based plants, compliance will be difficult to determine”
- “I disagree with the 24 hour window ... the ministry should be notified immediately”
- “30 days is too long to wait for a confirmation of a repair”
- “Records should be online and available to the public”

8. Notification for relocation of mobile plants

Response Form Question 8.1: Do you have any comments or suggestions regarding notification requirements for relocation of mobile plants (see intentions paper section 4.7)?

Respondents commenting on this topic generally expressed agreement or support for the ministry’s proposed requirements. Several respondents requested clarification about the term “mobile plants” and the requirement for an equipment layout plan noting, for example, that “any plant that isn’t on wheels isn’t ‘mobile’ – for a ‘job-based’ set-up, a plan shouldn’t be an issue to provide”. Another respondent suggested that “a ‘proposed plan for general equipment layout’ [be provided] prior to the relocation and then a subsequent ‘actual plan’ [be provided] after the move”. One respondent recommended “some mechanism... whereby local stakeholders have input, perhaps on-line, perhaps through the various ministries involved, and once a ‘good’ site is found, it should then be established as such for others to follow in the future”.

9. Asphalt plant siting requirement

The ministry is considering introducing siting requirements for stationary plants at new locations that mirror requirements for mobile plants (see intentions paper section 4.8).

Response Form Question 9.1: Do you have any comments or suggestions regarding siting requirements for asphalt plants?

Most respondents commenting on this topic expressed support for siting requirements however, diverged in recommendations about what factors should be considered in applying requirements. Several respondents, for example, expressed “concern regarding a preset setback [that] does not consider geographical limitations [such as ability to disperse emissions] of an airshed” and recommended “far greater” than those proposed in the intentions paper. A number of respondents noted their support for siting requirements “for the purposes of protecting surface water and public health” or “[pollution of] fish habitat”. In contrast, other respondents commented, for example, that “modern plants can run very efficiently and have been installed in buildings in high density urban areas” or recommended “a grandfather type clause... [in such cases as] moving to a new part of a pit that we own and have been working for years.”

Additional specific comments included:

- “Siting of new asphalt plants should be contingent on the existing emission levels within a common airshed ... this would consider the resulting cumulative ambient levels of pollutants to receptors at the ‘point of impingement’ ”
- “Siting plans should include consultation with a specialist regarding dispersion of atmospheric pollutants specific to the wind flow and the topography of the area”
- “Asphalt plants should not be located in valleys... near streams or rivers [or]... near schools, residences, hospitals, day care, businesses”
- “No plant [should be allowed to] operate.. and not permitted to crush rock within a mile of residential housing ”
- “Would support a greater distance between new plants and existing business/residence of 500 m instead of 300 m”
- “I would like the distances further and increase municipality taxes to offset traveling costs”

10. Inclusion of portable recycled asphalt pavement (PRAP) plants

A. PRAP plant air emission standards (see intentions paper section 4.9A)

Response Form Question 10.1: Do you have any comments or suggestions regarding air emission standards and PRAP plants?

Most respondents who commented on this topic noted that the ministry’s intentions “sound reasonable” however several commented that they had little experience or knowledge of these types of plants. One respondent, self-identified as a “dealer” for an asphalt recycling process,

commented that “we believe that the capability of the machine to run below 20% opacity exists already without the addition of emission control equipment”. The respondent further noted that “we recognize that because the machines are portable and will occasionally be used in close proximity to neighbors and the public in general; there may be a need for additional emission control equipment, if for no other reason than to prevent complaints to the ministry. Even though we don't believe that significant harmful emissions ever exist further from 5 or 10 metres from the exhaust, the visible emission (mostly steam), and odour do occasionally cause concern to those not familiar with the machine and it's unique processing method. As such, we are actively pursuing options to produce a simple control system add-on.”

B. Registration requirements for PRAP plants (see intentions paper section 4.9B)

Response Form Question 10.2: To you have any comments or suggestions regarding registration requirements for PRAP plants?

All respondents who commented on this topic expressed support for common registration requirements. For example, respondents recommended that “[PRAP] plants should have similar requirements to [other] asphalt plants” and “the ministry should be notified each and every time when ever these plants are moved, no different than a portable plant”. One respondent also recommended that “the public [should be notified so that]... people can plan to be away if a mobile operation is going by their neighbourhood”.

C. Environmental management plan (see intentions paper section 4.9C)

Response Form Question 10.3: Do you have any comments or suggestions regarding environmental management plan requirements for PRAP plants?

Similar to addressing other requirements for PRAP plants, respondents commenting on the topic almost universally expressed agreement or support for emission parameters and limits that are the same for PRAP plants as for other asphalt plants. Specific comments included: “Environmental Management Plan should also include provisions for dealing with monitoring test failures, [emissions] exceedances, and/or other problems”; “runoff water from the piles of broken rubble should be controlled”; and “plans should include plans for how they are meeting local environmental circumstances and the needs of local stakeholders”.

11. Dust and odour management plan

Response Form Question 11.1: Do you have any comments or suggestions regarding requirements for managing dust and odours associated with asphalt plants (see intentions paper section 4.10)?

Respondents commenting on this topic were generally supportive of including requirements for managing dust and odours. Some respondents questioned or requested clarification on “how this would be measured” noting, for example, that “odour is... very subjective” and “the ministry should then offer instructions to upon this plan”. Several respondents emphasized the

importance of dust and odour management “in the case of plants operating in or near residential areas” and that “this should be done in consultation with the public”. Another respondent commented that “our experience has shown that... companies do not suppress dust unless a complaint is made, and then is minimal until another complaint is made”.

12. Requirements for handling of material collected by emission controls

The ministry is proposing to update requirements for the handling of process water and runoff management (see intentions paper section 4.11).

Response Form Question 12.1: Do you have any comments or suggestions regarding proposed requirements for the handling of process water and runoff management related to asphalt plants?

All respondents who commented on this topic expressed support for the proposed requirements noting, for example, that “this is a good addition” or “this all sounds reasonable and achievable”. One respondent provided detailed comment, recommending that “there should be more specific parameters [addressing both surface and groundwater discharges]”.

13. Best management practices (BMPs)

The proposed code of practice may be supported by guidelines and/or best management practices (BMPs) that could provide detailed discussion and direction related to practices and procedures (see intentions paper section 5).

Response Form Question 13.1: Do you have any comments or suggestions regarding development and use of guidelines and/or best management practices for asphalt plants?

Respondents provided a number of specific suggestions for utilizing existing best management practices documents and commonly expressed a willingness to work with the ministry in the development of BMPs.

Additional specific comments included:

- “[BMPs] should be flexible enough to change some of the best practices to ‘force of law’ ”
- “During days of Air Quality advisories production should be halted”
- “It is not obvious that incentives exist to use best pollution control technologies on an evolving basis”
- “Comparisons to BMPs in other jurisdictions will be important”

14. Assuring compliance

Section 6 of the intentions paper outlines ministry intentions addressing awareness and compliance promotion, as well as compliance verification and enforcement, of the regulation.

Response Form Question 14.1: Do you have any comments on or suggestions for the ministry to support awareness of and compliance with the regulation?

A number of respondents expressed a willingness to work with the ministry in education and awareness, as well as the development of best practices. One respondent, for example, suggested that “the BCEIA (BC Environment Industry Association) may be able to assist with education and awareness”. Several respondents recommended that the ministry “put more resources into enforcement of existing laws for asphalt plants... [to] increase rates of compliance and level the competitive playing field to ensure that violators are not given an economic advantage”.

Additional specific comments included:

- “Compliance verification should include some form of unannounced audit/tests performed by an agent of the Ministry, paid by industry”
- “[We recommend] a system where records are monitored and tests are scheduled by the ministry, and where tests are conducted by technical persons under the direction of the ministry has far more credibility... the common industry model is for independent third party testing by qualified persons at the operators cost, under the supervision of a regulatory body such as the Ministry of Environment”
- “[Enforcement should include]...shutdown until compliance met to the Ministry’s satisfaction... monetary ‘punishment’ for bad behaviour [as well]... other ministries should be made aware of poor performance”

Response Form Question 14.2: Do you have any comments on or suggestions for the ministry with respect to compliance verification and enforcement of the regulation?

Many respondents commented that “consistent application [of any regulation]... both in compliance verification and enforcement” is essential for credibility of the ministry and effective application of regulatory provisions.

Additional specific comments or recommendations included:

- “Testing should occur at the beginning of each season [with] the asphalt operation contingent on Regulation (or Code of Practice) compliance”
- “Award contracts to the most modern and least polluting asphalt operations”
- “If less than 5% of plants are reviewed annually then there is little motivation for industry operators to ensure that they are in compliance of the Code of Practice, whereas if 20-30% of plants are inspected annually then this will help to ensure a greater degree of compliance and enforcement”

- “Extend enforcement to local bylaw officers when MOE personnel are unable to respond to complaints”
- “Has it ever been considered to ‘black-list’ continuing offenders?”

15. Fees

Response Form Question 15.1: Do you have any comments on or suggestions regarding fees for asphalt plants (as set out in section 9 of the Waste Discharge Regulation)(see intentions paper section 7)?

A limited number of specific comments were received on this topic, including:

- “Industry feels the current fees are appropriate”
- “Annual fees are important revenue streams for the enforcement of the standards and regulations... the ministry [should] set fees at levels appropriate to the cost of the program”
- “Fees [should] be the same for PRAP, hot-in-place and [any other] asphalt plants”
- “Companies should pay for their own emissions testing that is guided [and] managed by the MOE”
- “If everyone is satisfied so be it”

16. Protection of human health and the environment – meeting ministry objectives

Response Form Question 16.1: In your view, how effectively do the ministry’s intentions and proposals for revising the Asphalt Plant Regulation address the ministry’s objectives.?

Respondents who commented on this were divided. While a limited number of respondents felt that the proposals and intentions are “adequate”, a larger number fell on either side of this feeling either that there are “significant gaps” or that the proposals are “quite” or “very effective”.

Confidence in the proposed intentions was demonstrated in the following comments:

- “Intentions look and should be effective however it will take time to determine how effective”
- “More effective for some plants than others (e.g., asphalt plants, hot-in-place, PRAP)”
- “Industry [is] held accountable”

The following comments point out perceived gaps or questions about the proposed intentions:

- “To be successful ... the proposed code must recognize seriously compromised airsheds such as Prince George and require the technically and operationally achievable standards listed in section 4”

- “Plant siting requirements must be a minimum of five kilometres from a residential area, school or business unless these same section 1 standards are applied along with effective noise containment”
- “ The wording of many of the suggested requirements are too vague”
- “ The Code is unable to deal with existing problems between residential areas and existing plants (e.g., Whistler), in which case the more stringent emission parameter of 40 mg/m³ should be administered”
- “ The effectiveness of the regulation would be enhanced if it was coordinated with the other ministries involved”

Response Form Question 16.2: Do you have any other comments or suggestions for the ministry regarding the regulation of asphalt plants?

Additional specific comments or suggestions provided by respondents included:

- “Lack of trained personnel has made their (MOE) job difficult and let mobile plants give stationary ones a bad name”
- “Revised emission standards should come into effect for January 1, 2013 as the road builders in BC have been making significant upgrades for the last 10 years”
- “Recommend that the ministry consider measures to curtail the use of used oil as a waste derived fuel in asphalt plants... this means ensuring application of the Pollution Prevention hierarchy such that wholly reusable resources such as used lubricants are recovered and reused and not burned with the hazardous constituents they contain being discharged in British Columbia’s air”
- “The mortality burden of particulate matter [is estimated] to range between 0.2% to 0.93% for Interior and Northern Health – since each estimated mortality represents a much larger burden of morbidity, the health impacts associated with fine particulate air pollution is considered significant”
- “Random compliance inspections should be conducted on Sundays and statutory holidays”
- “Limit asphalt plant start up to working hours of the MOE staff so complaints can be handled in a timely manner”
- “[The] regulation needs a PM_{2.5} threshold and noise abatement provisions”
- “There are also many Hazardous Air Pollutants released from asphalt plants that are not regulated and a complete review is needed to address new knowledge in both identification and control of hazardous asphalt plant emissions not currently listed in the regulation”
- “In compromised airsheds such as Prince George where particulate and other hazardous air pollutants fully consume the atmospheric capacity to dilute pollutants from existing sources a more stringent air quality standard is required... GVRD permits issued for asphalt plant operations have a PM limit of 40 mg/m³ demonstrating that this level is operationally achievable ... we request that the above criteria apply within the city of Prince George and

to other jurisdictions with seriously compromised airsheds and/or inappropriate plant sitings”

- “It is not obvious that incentives exist to use best pollution control technologies on an evolving basis”
- “Limit asphalt recycling to specific environmental conditions as follows: temperatures above 20° C, wind direction away from populated areas, during specified hours”
- “Monitor inputs to asphalt plants (video recording) to ensure only acceptable materials are burned”
- “Enable complainants to test the air quality when there is repeated acrid air; provide testing equipment and resources to sample the air quality”

Appendix A: Acronyms and Abbreviations

Acronym or Abbreviation	Definition
APR	Asphalt Plant Regulation
BC	British Columbia
BCEIA	BC Environment Industry Association
BMP	Best Management Practices
CCME	Canadian Council of Ministers of the Environment
EMA	<i>Environmental Management Act</i>
GVRD	Greater Vancouver Regional District
m ³	cubic metre
mg	milligram
MOE	Ministry of Environment
MOTI	Ministry of Transportation & Infrastructure
PM	Particulate Matter
PM2.5	Fine particulate matter (particles less than 2.5 micrometers in diameter)
PRAP	Portable Recycled Asphalt Pavement Plants